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Krishnamurthy Bindumadhavan
Nelson Lacey *Editors*

Work Integrated Learning-Directions for the Future

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Krishnamurthy Bindumadhavan · Nelson Lacey
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Foreword from Director

Welcome to the International Conference on Work Integrated Learning (ICONWIL) 2024. It gives me immense pleasure to welcome all the participants, scholars, and industry experts joining us for this prestigious event. Work Integrated Learning (WIL) stands at the forefront of industry-education collaboration, offering invaluable opportunities for participants to apply their conceptual knowledge to solve real-world problems. I am delighted to witness the convergence of diverse perspectives, innovative ideas, and best practices in WIL from across the globe. ICONWIL 2024 promises to be a dynamic platform for dialogue, knowledge exchange, and networking. Through a rich tapestry of keynote presentations, panel discussions, and interactive workshops, we aim to explore the transformative potential of WIL in shaping the future of education and workforce development. In today's fast-paced and competitive landscape, the demand for skilled professionals equipped with practical experience and inter-disciplinary expertise is higher than ever. By harnessing the power of WIL, we can empower the next generation of leaders and innovators to thrive in a complex and rapidly evolving global economy. I would like to express my sincere gratitude to the organizing committee, sponsors, and collaborators for their unwavering support and dedication in bringing ICONWIL 2024 to fruition. Your collective efforts have laid the foundation for a truly enriching and impactful conference experience. To all participants, I encourage you to actively engage in the discussions, share your insights, and forge meaningful connections with your peers. Let us seize this opportunity to inspire, collaborate, and drive positive change in the field of Work Integrated

Learning. Thank you for your participation, and I wish you all a stimulating and rewarding experience at ICONWIL 2024.

Prof. G. Sundar
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Foreword from the Editorial Desk

Greetings to all participants of the International Conference on Work Integrated Learning (ICONWIL) 2024! As the editorial team behind this esteemed event, we extend a warm welcome to scholars, researchers, and practitioners from around the globe. ICONWIL represents an invaluable opportunity to engage with cutting-edge research, innovative practices, and thought-provoking ideas in the field of Work Integrated Learning (WIL). At the heart of ICONWIL lies a commitment to advancing knowledge and driving positive change through interdisciplinary collaboration and scholarly inquiry. Through rigorous review processes and meticulous attention to quality, we have curated a diverse selection of contributions that reflect the latest advancements and emerging trends in WIL. Our goal is to foster meaningful dialogue, inspire new perspectives, and catalyze transformative action within the realm of WIL. Whether you are presenting your research, participating in panel discussions, or networking with fellow attendees, we hope that ICONWIL serves as a catalyst for inspiration, learning, and professional growth. We extend our heartfelt gratitude to all authors for their invaluable contributions to this conference. Your dedication to advancing the frontiers of knowledge is truly commendable, and we are honored to showcase your work on this global platform. We also extend our sincere appreciation to the organizing committee, sponsors, and volunteers for their tireless efforts in bringing ICONWIL to fruition. Your hard work and dedication have been instrumental in making this conference a reality. As you engage with the rich tapestry of ideas presented at ICONWIL, we encourage you to approach each session with curiosity, open-mindedness, and a spirit of collaboration. Together, let us explore

new horizons, inspire innovation, and shape the future of Work Integrated Learning. Thank you for your participation, and we wish you a stimulating and rewarding conference experience.

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Towards Mainstreaming Work-Integrated Learning at the Secondary Level: A Pedagogical Framework of Learning Design

Mrinal Mukherjee, Chanchal Maity, Manami Bhadra, and Somdutta Chatterjee

Abstract It is time to redefine the principle of "learning to do" by adapting functional knowledge and competencies that are compulsions for 21st-century global citizens to thrive and prosper. There is a huge body of research on the policy perspective of the need for work-integrated learning. At the same time, there is a shortage of research pieces of evidence on what kind of learning design should be adapted in mainstreaming work integration at the secondary level of schooling. This study examines the deep perspective of pedagogy of learning design while integrating work with mainstream subjects from the viewpoint of teacher and student. The present research is a qualitative study which has adopted an exploratory research design. To probe more deeply into conceptual ideas on a specific theme, the data was collected through the Focus Group Discussion (FGD) of 21 practicing secondary school teachers divided into two groups. The FGD in this research followed a standard protocol with eight lead questions. Teachers across the discipline have agreed that despite some critical challenges, integration of work experience with mainstream subjects is the need of the time as envisaged in the policy discourse. The collective opinion provides a theoretical basis for formulating a pedagogical framework. Such a pedagogical framework is viable and flexible in terms of accommodating diverse work experiences with different mainstream school subjects in the best possible manner to ensure learning.

Keywords Work-integrated learning · Mainstreaming · Focus group discussion · NEP 2020 · NCF-2023

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1 Introduction

Working Group on Education of G20, under the presidency of India, has recognized four priority areas targeting bridging the gaps in education towards quality, which emphatically mentioned "the capacity for the future of work" [1]. The same policy has also ardently supported fostering connections and collaboration between various sectors of education and the workforce. The National Education Policy 2020 has been designed to engage a bottom-to-top approach targeted to cover nearly 500 million children and young adults within its ambit to make future citizens for the country which is going to lead the global economy [2]. It is more and more necessary for children not only to learn but also to develop the art of learning, given how quickly the global financial ecosystem is changing in the realm of employment. Education must thus move towards how to think critically towards creativity to solve problems. Schools must focus on inculcating transdisciplinary knowledge and skills to prepare students for future job market markets. At the same time, learners must be infused with the abilities necessary to be ethical, rational, compassionate, and empathetic members of the society we are aspiring to.

Considering the relevance of the world of work, The NEP 2020 has brought the agenda of entrepreneurship into the host spot of the educational fabric and the policy document extensively elaborated on the major issues of revamping school education towards integration of vocation with entrepreneurial skills. The policy emphasizes the integration of work experience into the mainstream school curriculum. And it is noteworthy that the advocacy of the NEP-2020 policy aligns with the Sustainable Development Goals of the United Nations Agenda 2030. The member countries of the United Nations are obliged that learners at all levels attain the functional knowledge and competencies necessary to ensure sustainable development by 2030. Furthermore, it should be a top priority to empower young people and adults with contemporary technical and soft skills to strengthen them and encourage entrepreneurship, which could outcome in decent jobs as well as creative and productive employment.

The present practice is facing challenges of rote learning with limited emphasis on understanding and self-construction of meaning, examination-driven grade dominants, and failure to erase the hard line of scholastic and co-scholastic dichotomy. The biased societal perception and attached stigma always acted as inhibitors for mainstreaming and implementation of vocational education which is commonly known as vocational school fallacy [3] where most students chose higher education for white-colour jobs in place of blue-colour jobs. In ground-level practice, the lack of societal recognition of vocation-based practical work in the educational field seems to be a particular handicap. Even the stakeholders of school education of the secondary stage are in dilemma regarding the adaptation of the policy of mainstreaming work-integrated education and in building a deliverable system that can ensure mainstreaming work integration in education. The real challenge of developing such a National Curricular Framework is to accommodate and align the curriculum with National Education Policy commitment as inputs and to frame a curriculum which needs to be pragmatic and effective in ensuring bringing changes

in the practice of learning teaching at the ground level. Finally, National Steering Committee for National Curriculum Frameworks under the aggies of NCERT has published National Curriculum Frameworks for School Education-2023 with an aim so that learners and teachers should be able to relate it to their current realities [4].

Now, the global education ecosystem is trying to redefine the principle of "learning to do" by the adaptation of functional knowledge and competencies that are compulsions for 21st-century global citizens to thrive and prosper. There is a huge body of research literature regarding the policy perspective of the need for work-integrated learning, while there is a dearth of research pieces of evidence on what kind of learning design should be adapted in mainstreaming work integration at the secondary level of schooling. This qualitative study examines the deep perspective of pedagogy of learning design while integrating work with mainstream subjects from the viewpoint of teacher and student.

1.1 Mainstreaming Work-Integrated Learning at the Secondary Level—Policy Discourse

As per the ILO, there is a possibility of a skill deficit of 29 million potential workforce by 2030 that will instrumentally affect India's GDP [5]. Work-integrated education has been the major focus of international studies, exhibiting its growing concern from the perspectives of the economic and social context of several countries, especially developing countries in global contexts around the world [6]. The UNESCO Revised Recommendation concerning Technical and Vocational Education, which was adopted by the General Conference at its eighteenth session in 1974, is another example of how this aim has been forcefully expressed on an international level. According to paragraph 2 of the recommendation, technical and vocational education should be viewed as (a) an integral component of general education; (b) a way to get ready for a particular occupational field; and (c) an aspect of continuing education. The true issue here is figuring out how to combine general education with work experience. One significant disadvantage seems to be the absence of social acceptance of fieldwork related to vocation-based work in education. Thus, integration is a complex problem that cannot be resolved by only establishing coordinating bodies or altering the system's purported structure; rather, consideration must also be given to the issues of qualification and equivalencies towards a socially acceptable and accountable system [7]. Work integration at the high school level became essential starting in the nineteenth century due to the increased demand for the production sector [6].

As far as the Indian context is concerned, the earliest Kothari Commission report of 1966 emphasizes diversifying the curriculum at higher secondary levels through work-integrated education. But the progress was miserable [8]. The National Education Policy, of 1986, further emphatically focused on improving the organizational

and management structure of vocation-oriented education [9]. The strong advocacy focused on the integration of work experience for both secondary and higher education levels, by introducing Socially Useful Productive Work (SUPW).

In UNESCO's State of the Education Report for India 2020 [10], Technical and Vocational Education and Training (TVET) titled "Vocational Education First" provided very crucial suggestive solutions regarding the mitigation of challenges of mainstreaming work-integrated education in the country highlighting the need for appropriate ecosystem for teachers, trainers, assessors, and learners. Integration of experience of local trades and vocations would also facilitate the preservation of tangible and intangible cultural heritage.

Indian education not only has the immediacy to adapt a policy but needs to build subsequent strategies to address the aspirations of our upcoming 22nd-century generations. NEP-2020 has expressed its firm commitment that by 2025, at least 50% of school learners must be exposed to and oriented towards work experience-related education [2]. From those perspectives, NEP-2020 has emphatically upheld competency- and skill-based education for school curricula to mainstream work-integrated education. NEP-2020 has promised that the country will deliver A new and comprehensive National Curricular Framework for school education based on the principles of this Policy instrument 2020, to update once every 5–10 years. The NEP-2020 as an instrument tried to align vocational education with international standards as prescribed by the International Labour Organization. It also emphasized the partnership between Industrial Training Institutes (ITIs), Polytechnics, and other relevant technical institutes and it has also recommended the inclusion of industry, NGOs, and civil society organizations in implementing the NSQF.

In brief, the recommendations of NEP-2020 regarding mainstreaming and promoting work-integrated education can be summarized as:

(a) No rigid compartmentalization between the vocational stream and academic stream to get rid of the traditional hierarchies in education.
(b) Well-orchestrated efforts will be given to ensure universal access to holistic quality education combined with work experience education to all children from foundation to secondary level.
(c) Students will be empowered to enjoy increased flexibility in choosing subjects, particularly at the secondary level including arts and crafts, and work experience and skills as per their preference and they will have the scope to re-enter into XI–XII grades by opting for vocational education after a temporary exit.
(d) The tradition of "LokVidya" will be encouraged in integrating work experience components into mainstream education with vocational and occupational exposure at early ages in middle and secondary school and the focus areas for such work experience education will be selected based on skills gap analysis and mapping of local opportunities.
(e) Different formats and innovative models of work-integrated model will be tried and experimented with specialized higher education institutions, aligned with the National Skills Qualifications Framework (NSQF).

(f) The school education pedagogy will be designed in such a manner that it would have the potential to address the demands of work experience-integrated education in the form of experiential participatory learning.

2 Background of the Present Research

The world is experiencing massive changes in production mechanisms and the job market is witnessing new kinds of demands. The inflow of the workforce in the job market is unmatched. The talent-skill gap exists at various levels and is acknowledged by all stakeholders. It is affecting the employability scenario in almost every sector. As per the International Labour Organization, there will be a skill deficit of 29 million by 2030, which will significantly affect India's GDP [5]. The NEP-2020 as an instrument tried to align education with adequate work experience with international standards as prescribed by the International Labour Organization [2]. It also emphasized the partnership between Industrial Training Institutes (ITIs), Polytechnics, and other relevant technical institutes and it has also recommended the inclusion of industry, NGOs, and civil society organizations in implementing the NSQF.

Planning of learning design towards integration of work experience with school curriculum was a big challenge for the implementation of such a policy of education adequately loaded with work exposure in the light of NEP-2020. The learning design and lesson complement each other like a motor vehicle and fuel. A lesson having no scientific design remains abortive efforts to impart experiential learning, which is the basis of work-integrated education. An effective lesson is characterized by its attractiveness, dynamism, effective engagement of learners towards lessons, and learner's active participation through interactions and feedback in the classroom. Such a plan for the full engagement of both learners and teachers with a scripted design of learning is essential for understanding and implementing a work experience-loaded curriculum [11] at the School of Education. Pedagogical management of planning and implementation of learning design with integration of work experience with mainstream subjects of school education is a major factor for school performance in the context of contemporary global school education. At the same time, intense pedagogical management and supervision of learning-teaching are some of the key characteristics contributing to the effective performance of the schools [12].

Despite the consensus about the utility of pre-prepared learning design as "the hidden world of teaching"[13, 14], teachers are challenged in many ways: inadequate knowledge about lesson plan design, lack of in-depth knowledge of relevant theories of the lesson plan, time duration of class time, classroom management-related challenges, insufficient educational technology and internet facilities, no steady framework for assessment of teachers' classroom performance, lack of institutional support, and shallow knowledge regarding the formative assessment as an in-built component of teaching models [15–17].

There might be a philosophical premise and theoretical advocacy, but practicing teachers remain in a state of confusion that what pedagogical framework they adapt

while preparing learning design to integrate work experience. It is very crucial to judge what kind of theoretical assumptions are needed for providing the pedagogical basis of such a lesson plan. Without a doubt, job integration can lead to the best learning experiences. To develop a work-integrated learning environment that fosters deeper comprehension and knowledge reflections, learners must primarily base their approach on experiential learning [18]. According to Georgiou et al. [19], there are two major approaches to experiential learning pedagogy: the "live" approach and the "classroom-confined" approach. The "live" approach is challenged in terms of feasibility but praised by both teachers and learners as such design provides the possibility for the learners to experience a certain community practice of diverse occupations [20]. Any kind of design that allows and empowers teachers and learners to learn through work experience within a classroom setting is an alternative which has higher feasibility but is pedagogically challenging. Both approaches need to be taken care of in designing the learning design to integrate work experience with mainstream subjects. Hence, designing of lesson plan must be taken into consideration such pedagogy of experiential learning.

The general pedagogical discourse is not enough to transform the existing practice of learning teaching into work-integrated learning teaching. There is sufficient inadequacy of research evidence on how to successfully adapt work experience in learning-teaching. The concept of pedagogy encompasses the thinking and doing of teachers, which are interrelated and have the potential to influence one another. Furthermore, there is the visible, measurable, and impact of teachers' pedagogy on their students [21]. This qualitative study implicitly studied the practicing teachers' understanding of the integration of work experiences in transforming present information-loaded learning-teaching and learners' understanding of such work experience-integrated learning.

This empirical research tried to find the practicing secondary school teachers' perspectives on the following research questions:

- Is it possible for students to learn, understand, and apply knowledge if they are exposed to work-integrated learning teaching through mainstream school subjects?
- Do you think that a critical pedagogical intervention is needed to design the learning design of work-integrated learning teaching?
- Can any mix-n-match pedagogical approach be adapted while designing learning for secondary-level students in integrating work experience with mainstream subjects within the curricular span of relevant central and state boards?

3 Methodology

The present research is a qualitative study which has adopted an exploratory research design. To probe more deeply into conceptual ideas on a specific theme, the data was collected through a Focus Group Discussion (FGD) of practicing secondary school teachers. This allows more in-depth and balanced interaction among participants [22]

and captures the diversity and complexity of opinions and perspectives among the participants, as well as the points of agreement and disagreement [23]. The FGD in this research followed a standard protocol as mentioned in the prior studies [24, 25].

3.1 Participants

As FGD is a collective response rather than an individual [26] consequently, interaction is important to a successful focus group. Teachers who had completed at least five years of secondary school experience and consented to employ the pilot learning design in their schools represented the primary respondents. So, the nature of the participants is homogeneous in this research. The advantage of homogeneity incorporates shared experiences, comfort, and familiarity which facilitates discussion or the ability to argue with each other comfortably [24]. The consent of the respondents was taken before conducting FGD. The participants were 21 in number and selected purposively. For the large number of participants, two focus groups were made for the discussion [23]. In the first group and second groups, there were 12 and 9 teachers, respectively.

3.2 Focus Group Composition

The study adopted a purposive sample in selecting the informants. Though the group had homogeneity in terms of the nature of teaching, still the composition of each of the focus groups was mixed age and sex of the teachers. The age of the teachers ranged from 32 to 58. The sex incorporated both men and women as there was no intersex present in the focus groups. Another important point is that the respondent teachers were represented by both humanities and science disciplines.

3.3 Focus Group Moderation and Discussion

The group discussion was facilitated by the principal researcher with the assistance of the co-researchers. After the "ice-breaking session" and a round of self-introduction, the lead researcher initiated and facilitated the discussion. There were eight lead questions, four of which had one subset of questions. The lead questions and subset of questions had been designed to precisely understand the respondents' view on pedagogical perspectives that needed to be considered in preparing to learn designing towards integration of work with mainstream subjects. The assessment of data was done through conversation analysis and qualitative content analysis. The assessment and interpretations are qualitative; however, diagrams have been used where deemed fitted for illustrations of findings. FDG was conducted to facilitate an intensive as

well as extensive exchange of ideas [27] on the prospective pedagogy of learning design that can ensure the integration of work experience with mainstream subjects. The audio dialogue was transcribed in written format for analysis.

4 Research Findings

Teachers across the discipline have agreed that despite some critical challenges, integration of work experience with mainstream subjects is the need of the time as envisaged in the policy discourse. The humanities teachers had the opinion that integration of work, for example, if they learn content writing and content editing from the publishing house would not only facilitate learning but also make them job market-ready.

A teacher of Bengali Literature rightly addressed: "….certain components of school-level Bengali subjects like 'folk Literature', and 'drama' necessitate learning by going beyond the classroom and engagement in activity can be more fruitful than the traditional approach".

Such engagement can successfully lead towards a profession. Science teachers believe that integration of work experience will not be a burden and instead of hampering learning, such activity engagement with work and the professional world will facilitate learning of the core concept of science. Geography Teachers were enthusiastic that their subject might have ample opportunity to place the experience of certain vocations and occupations in higher order and pedagogical consultations are needed for effective mainstreaming of such work-based experiences. A quote from a Sanskrit language teacher is hereby,

> I am willing to integrate but I cannot afford it unless and until I am empowered by pedagogical support.

All teachers collectively voiced their views that there is a need for a concrete pedagogical framework for designing and implementing work-integrated learning designing. For comprehension of the major pedagogical advocacies, as reflected from FGD, the findings are discussed as follows: Subsequent paragraphs, however, are indented.

4.1 Advocacy for "Experiential Learning Theory" in Learning Design

Experience learning-teaching, which is based on the theories of Dewey, Lewin, and Piaget, emphasizes the process of creating knowledge by first gaining and then reflecting on life experiences [28, 29]. Regardless of discipline, teachers have come to an accord that any learning design that could promote local vocational experience must be created to guarantee an advantageous experiential journey. Learners can

think more critically, be more creative, and develop experience from their mistakes, to comprehend the events in greater depth. Both science and humanities teachers advocated that pedagogy of learning design for work experience-integrated learning-teaching needs to be operationalized to allow learners to have authentic experiences about the world of work.

An input from a history teacher added here: "*Work integration needed to look beyond the traditional boundary, for example visiting local places for historical importance like monument studies might lead to a vocation of travel guide*".

Hence combining the views, it could be said that work-integrated learning may be adapted and customized as per the content nature of the subject and local feasibility. Hence outdoor learning and engaging with short-term projects lead to creating cooperation and collaboration through a pedagogically relevant and sound learning design that needs to be dynamic and interactive. A math teacher pointed out *"the traditional approach of mathematics learning teaching is a barrier for math learning, contrarily, if we can engage them with practice of local trade they will learn math better and effective manner"*. Teachers had the opinion that exploring the pedagogy of experiential learning is the best possibility for application of constructivism, which can be the best practice in mainstreaming the work experience. This "learning system" [30] hence calls for giving students thoughtful and purposeful guidance on how to transform experience into learning in addition to resources and opportunities. All learning designs hence need to take care of the cycle of learning through experience as precisely improvised after Kolb's approach to learning sequence (Fig. 1).

4.2 Learning Design to Integrate Work Experience—Construction to Conceptualization

Humanities teachers admitted that at the school level, they are more habitual to lecture-based instructional methods and such kind of instruction is not conducive to accommodating work experience in learning and teaching. In search of a deeper understanding of the learning process, irrespective of disciplines, the teachers opinionated that learning design should frame more liberally adapting cognitive constructivism. Engagement with work experience in a strategic manner, preferably local trade, and vocation-based experience, would create an opportunity for a more "student-centredness" to instruction. Learning design prepared based on cognitive constructivism would facilitate work integration in learning-teaching. Either outdoor or strategic classroom-based work exposure facilitates learners' interaction with the environment and actively builds up and reorganizes mental structures of knowledge and skills of particular learning concepts in connection with a particular work experience. One science teacher advocated,

> …the learning design should have enough flexibility so that teachers can stylize the instructional approaches as per the nature of their subject while integrating work experience.

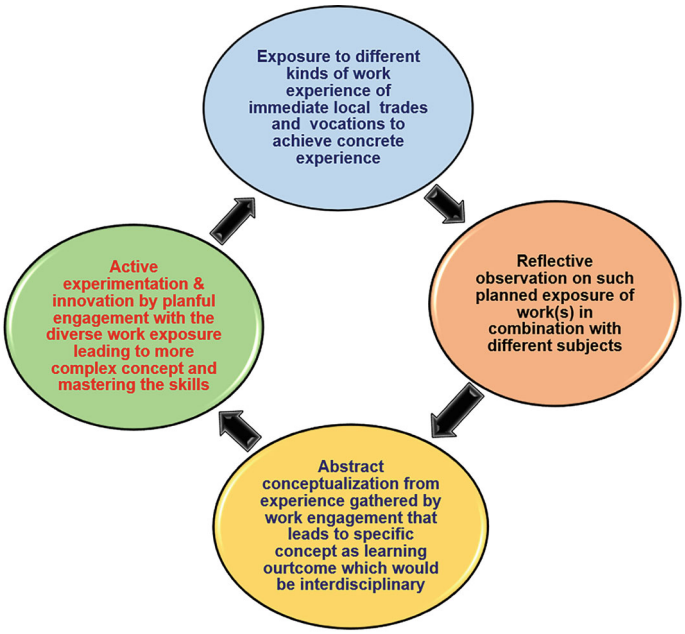
Exposure to different kinds of work experience of immediate local trades and vocations to achieve concrete experience
Reflective observation on such planned exposure of work(s) in combination with different subjects
Abstract conceptualization from experience gathered by work engagement that leads to specific concept as learning ourtcome which would be interdisciplinary
Active experimentation & innovation by planful engagement with the diverse work exposure leading to more complex concept and mastering the skills

Fig. 1 Pedagogy of work-integrated experiential learning cycle. Improvised and adapted from Kolb and Kolb [30]

The core pedagogical idea is that teachers are facilitators, while learners are active, self-directed constructors of knowledge towards developing concepts through engagement with work. Therefore, teachers' views supported that effective experiential learning could be implemented by learning design that needs to have the potential to allow learners to work to learn and to learn to work. So, the construction of knowledge towards conceptualization is possible.

4.3 Advocacy Towards the Assimilation of Gagne's 9 Events of Learning

Few teachers have drawn attention to exploring "Gagne's nine events" of learning for designing work-integrated learning design. The respondents were in consensus that in the premise of constructivism, work experience blended learning design needed to be developed in combination with the constructivist approach and Gagne's nine events approach. Gagne considered behaviourism and cognitivism as instrumental and advocates for need-, task-, and outcome-based learning [31]. Teachers stressed that work-integrated learning design must have the provision of formative assessments which is inherently in-built. Gagne's contribution is appreciated from many corners as a structured instructional design for its sequence of learning-teaching

tasks [32]. Teachers unanimously accepted that Gagne's nine events needed to be combined in designing learning design while integrating work experience with mainstream subjects. Wong (2018) utilized Gagne's "9 events (i) capturing attention; (ii) disseminating learning objectives; (iii) stimulating retention of prerequisite learning; (iv) highlighting the stimulus material; (v) giving learning guidance; (vi) presenting the performance; (vii) giving feedback about performance correctness; (viii) evaluating the performance; and (ix) developing memory" in developing structured lesson design for different nursing and paramedical courses [33].

4.4 Towards a Generic Model for Learning Design for Integration of Work Experience with Mainstream Subjects with a Mix-N-Match Approach

While Gagne considered behaviourism and cognitivism as instrumental, he advocates for need-, task-, and outcome-based learning. In a constructivist learning culture, a learner becomes an active thinker, and divergent thinker, formulates questions, explores for deeper understanding, and immediately applies concepts in daily life. Hence engaging with work within the curricular framework by integrating work experience with mainstream subjects is the outcome-based approach. Learners need to engage with a learning design that allows them to identify problems, develop their views, develop predictions as hypotheses, and finally create their answers by interacting with real-world experience. Hence here a generic learning design is in demand to integrate work experience. One of the History teachers said,

> We cannot design any lesson without combining the different learning theories and more clearly speaking such lesson design demands the combination of constructivist and behaviourist learning theories in the best possible balanced manner.

The pedagogical framework of learning outcome-based learning design for the integration of work experience with mainstream subjects of school at the secondary level is proposed herewith (see Fig. 2).

5 Discussion

Pedagogy is the way the curriculum is transacted, in other words, the science of designing and execution of learning design. Consequently, pedagogy includes the third dimension—the visible, observable, and measurable impact of the teacher's pedagogy on the learners—as well as how teachers think and act, or how one influences the other. Thus, "effective pedagogy" refers to these three facets of teacher thought and practice as well as their impact on the learning outcomes of students [21]. Such interaction is dynamic where teachers continuously adapt to demand and learners influence such demands. Major research findings have demonstrated

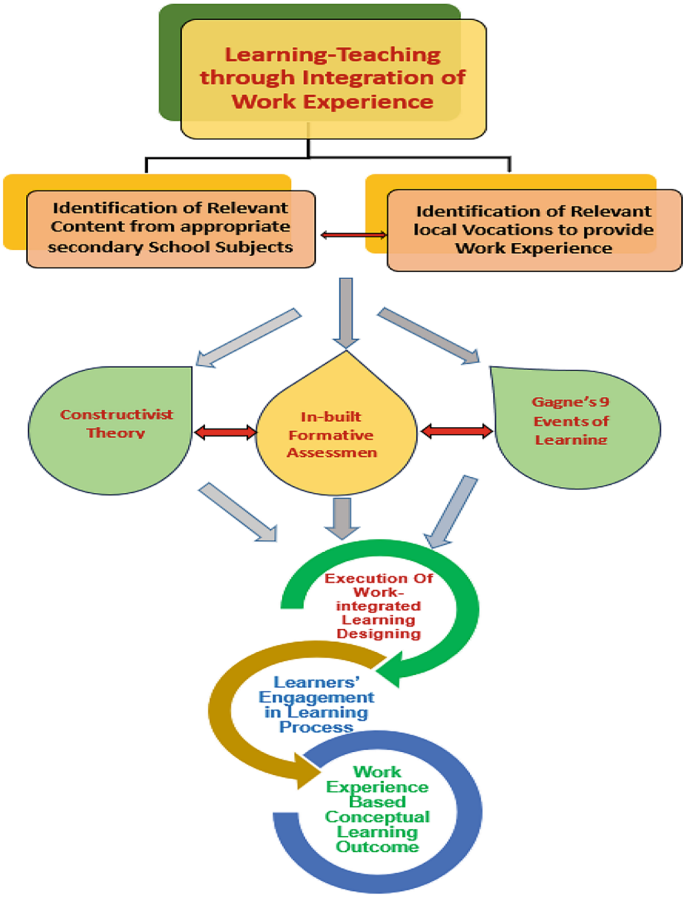
Learning-Teaching through Integration of Work Experience
Identification of Relevant Content from appropriate secondary School Subjects
Identification of Relevant local Vocations to provide Work Experience
Constructivist Theory
In-built Formative Assessmen
Gagne's 9 Events of Learning
Execution Of Work-integrated Learning Designing
Learners' Engagement in Learning Process
Work Experience Based Conceptual Learning Outcome

Fig. 2 Towards mainstreaming work-integrated learning design at the secondary level: a pedagogical framework

that work integration satisfies the experience-based constructivist pedagogy. This is because work integration ensures that subjects develop a conceptual understanding of the subject matter and certain relevant work-related skills by facilitating connection, interaction, and involvement in the real-world scenario through occupational engagement [34].

The current study looks into the effective theories for developing learning designs, identifies the potential determinants of the learning design, and puts forth a framework guideline for designing learning design where energumen with work has been considered a natural way of learning. The school curriculum suffers from its inert nature where theory is being taught without connections to real-life situations, need to adapt an altered pathway, and where work-integrated learning teaching might be the most important instrument. While the integration of work experience with mainstream subjects was appreciated, at the same time, the need for work ethics and

argumentative skills gained importance in the agenda from all stakeholders and the present findings are in line with the findings of Christidis et al. [35] which suggested that "subject-work-integrated learning teaching" was shown to expand the notion of conceptual knowledge and skills, "going beyond what knowing is made available by each subject alone".

The empirical assessment of reflection of practicing teachers on the agenda of feasible and effective pedagogy regarding the effectiveness of learning design essentially encompasses Gagne's nine events of learning in the theoretical premise of constructivism and in-built formative assessment. This proposed pedagogical framework is a potential instrument to provide a guideline to teachers in their endeavour to integrate work experience with mainstream subjects. The teachers might adapt this border framework with customization as dim fit. The framework could be beneficial in many ways. The teacher could sequentially structure the design of learning to match with subject nature and compatible work experience to maximize learning. The teacher is the best judge on how and when to blend the work experience in class or outside the classroom situation, while pre-prepared assessment tools help the teacher in learning assessment and, in turn, inform the teacher where to improvise the stylization of learning teaching. Usually, the major challenge teachers face is assessment and challenges become many folds in work-integrated learning teaching [36]. Thus, such a framework empowers teachers for effective assessment and assessment data-informed continuous improvement of learning teaching. However, the efficacy of such a pedagogical model depends on the experience and intention of teachers and how he/she utilizes such empowerment. But there is a need for whole school readiness to accommodate this pedagogical framework in mainstreaming the work experience with mainstream subjects at secondary level.

The findings are also helpful for the learners as they also get immediate feedback on their learning and they would have active participation in learning through work engagement either inside or on field learning teaching. There are ample possibilities for teachers apart from assessment of learning, they explore student feedback which would have an instrumental influence on teachers in improvising the learning-teaching.

6 Conclusion

Students can apply their knowledge and abilities in real-world settings using work-integrated learning, which helps close the gap between theory and practice. Moreover, by integrating work experience with school subjects, students can explore their interests and determine their career goals at an early age, which can help them make informed decisions about their future profession.

The policy makers need to acknowledge the growing importance of education for entrepreneurship and all stakeholders need to work together to ensure systemic change in school education practices. Much focus and attention should be given

to rigorous research so that the system can adopt innovative approaches in work-integrated education so that the system can supply the evolving demands of the job market.

With concerted efforts involving all the stakeholders, the recommendations of NEP 2020 considering the exposure of 50% of students to some sort of vocation-based work experience education by 2025 will become a reality. The present status of students' knowledge about the job market challenges and changing perspectives of the guardian and the community are likely to play a positive role in adapting work experience-integrated school education. The pedagogical framework of learning design developed may serve as an important instructional tool in integrating various work experiences with mainstream subjects. At the same time, students would be an advantage to navigate in a higher academic career. Hence, exercising work-integrated education through mainstream subjects would be productive and could lead to a positive change in school education as envisaged in NEP-2020.

7 Scope of Future Research

Engaging this proposed pedagogical framework, subject-wise work-integrated learning design may be developed by concerned subject teachers. Later, the same learning design might be transacted as a pilot for the students in class and outside the classroom model, and student reactions and responses might be captured through a pre-designed feedback survey schedule and subsequent dialogue. Student opinion is a crucial pedagogical input in re-assessing the efficacy of the proposed pedagogical framework of work-integrated learning teaching through school subjects. Hence herein, this pedagogical framework might be improvised towards a more efficient model that would have higher efficacy to ensure learning outcomes.

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